MODEL 1004 12-PORT HUB SPECIFICATIONS

Standards

IEEE 802.2, 802.3

Physical

Dimensions

17.0" X 7.5" X 1.7" (432 mm x 191 mm x 43 mm

Input Power

Universal Power Supply

Input Range: 85 to 265 VAC at 47 to 63 Hz.
(Rated at 40 watts maximum.)

AC Input:

TN PN	Requirement	Location
3344	120 volts, 60 hertz	USA/Canada/Mexico
3344	100 volts, 50-60 hertz	Japan
3347	230 volts, 50 hertz	Europe
3348	240 volts, 50 hertz	Australia
3349	240 volts, 50 hertz	United Kingdom

Environment

Temperature:	0-50°C (32° to 122° F)
Humidity	10-90%, non condensing
Altitude	0-10,000 feet

Warranty

5 years

Model 1004
12-Port Ethernet Hub

(E-TBT-HB-1004)

7366.C

For assistance in installing, using, or maintaining the TRANSITION Networks Model 1004 Ethernet™ Repeater Hub, contact TRANSITION Networks Technical Support at:

(800) 260-1312

or contact your local distributor.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EG-Mitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

Compliance Information
UL Listed
C-UL Listed (Canada)
CISPR/EN55022 Class A

FCC Regulations
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations
This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

European Regulations
Warning
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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Trademark Notice
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10Base2 Cable Specifications
The physical characteristics of the 10Base2 cable must meet or exceed IEEE 802.3 10Base2 specifications.

Cable Characteristics:

Cable type:	Stranded Coaxial RG58 (ThinNet)
Impedance:	50 Ω @ 10 MHz
Mutual Capacitance:	24 pF/ft ±20% @ 10 MHz
Maximum Cable Length:	185 meters (610 feet)
Maximum number network connections:	30
Minimum distance between connections:	0.5 meters (1.6 feet)

Terminate 10Base2 cable at one end using a 50 ohm terminator and at the other end using a 50 ohm terminator grounded to earth ground.

10BaseT Cable and Connector Specifications
The physical characteristics of the 10BaseT cable must meet or exceed IEEE 802.3 10BaseT specifications.

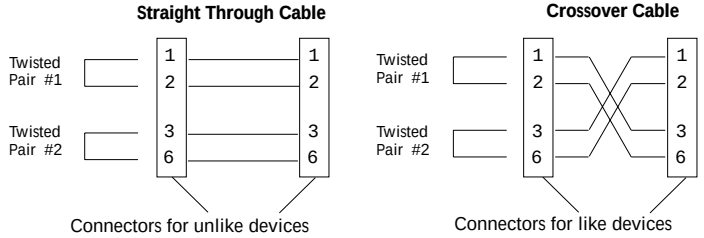
10BaseT Cable Characteristics:

Category 3 wire or better is required; category 5 wire is recommended. Either shielded twisted pair (STP) or unshielded twisted pair (UTP) can be used. DO NOT USE FLAT OR SILVER SATIN WIRE.

Category 3:	
Gauge	24 to 22 AWG
Attenuation	28 dB/1000' @ 10 MHz
Differential Characteristic Impedance	100 Ω ±10% @ 10 MHz
Category 5:	
Gauge	24 to 22 AWG
Attenuation	20 dB/1000' @ 10 MHz
Differential Characteristic Impedance	100 Ω ±10% @ 10 MHz
Maximum Cable Length:	100 meters (330 feet)

10BaseT Connector Characteristics:

The two active pairs in a 10BaseT network are pins 1 & 2 and pins 3 & 6. Use only dedicated wire pairs (such as blue/white & white/blue, orange/white & white/orange) for the active pins. 10BaseT cable for unlike devices (such as hub to terminal device) must be configured as straight through; 10BaseT cable for like devices (such as hub to hub or terminal device to terminal device) must be configured as crossover.



ETHERNET CABLE SPECIFICATIONS

Maximum number of terminal devices on Ethernet network: 1024

10Base5 Cable and Connector Specifications

The physical characteristics of the 10Base5 cable must meet or exceed IEEE 802.3 10Base5 specifications.

10Base5 Cable Characteristics:

Cable type:	RG8 Solid Coaxial (ThickNet)
Impedance:	50 Ω @ 10 MHz
Capacitance:	26pF/ft
Maximum Cable Length:	500 meters (1650 feet)
Maximum number network connections:	100
Minimum distance between connections:	2.5 meters (8.2 feet)

Terminate 10Base5 cable at one end using a 50 ohm terminator and at the other end using a 50 ohm terminator grounded to earth ground.

AUI Cable and Connector Specifications

The cable is a special 4-pair individually shielded with an overall braided shield.

Maximum AUI Cable Length: 50 meters (165 feet)

AUI Connector Characteristics:

AUI Port: Male DB-15 with locking posts.
AUI Connection: Cable shell must be grounded.

Connector Legend:			
1 Logic Ref.	6 Power Return	11 Logic Ref	
2 Collision+	7 N/C	12 Receive	
3 Transmit+	8 Logic Ref.	13 Power	
4 Logic Ref.	9 Collision--	14 Logic Ref.	
5 Receive+	10 Transmit-	15 N/C	

10BaseFL Cable and Connector Specifications

The physical characteristics of the 10BaseFL cable must meet or exceed IEEE 802.3 10BaseFL specifications.

10BaseFL Cable Characteristics:

Fiber Optic Cable Recommended:	62.5/125 µm multimode fiber
Optional:	100/140 µm multimode fiber 85/125 µm multimode fiber 50/125 µm multimode fiber
Fiber Optic Transmitter Power:	Average power: -15.0 dBm Peak power: -12.0 dBm ±1dBm
Fiber Optic Receiver Sensitivity:	Average sensitivity: -27.4 dBm Bit error rate: $\leq 10^{-10}$
Maximum Cable Length:	2000 meters (6500 feet)

10BaseFL Connector Characteristics:

ST type connectors (SMA type available upon request)

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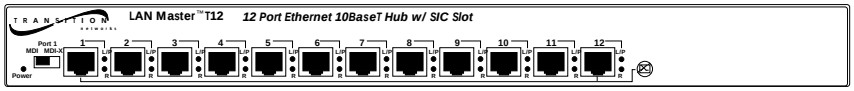
1. INTRODUCTION

This guide is intended for the system or network administrator responsible for installing and monitoring a TRANSITION Networks Model 1004 12-Port Ethernet™ Repeater Hub. A working knowledge of local area network (LAN) operations, including familiarity with communications protocols used on interconnected LANs, is assumed.

The Model 1004 Repeater Hub

The TRANSITION Networks Model 1004 12-Port Ethernet™ Repeater Hub, is a small, multi-purpose Ethernet repeater that is site-configurable, using an optional Slide In Card (SIC), for various signal transmission media.



- Twelve fixed RJ-45 twisted-pair connectors
- SICs, if installed, provide fiber optic, male and female AUI, BNC, or RJ-45 connectors.
- SICs allow future network expansion or modification

The sole purpose of this remedy shall be provided the customer with the replacement or repair of non-conforming goods in the manner described in this Warranty statement. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as TN is willing and able to repair or replace the defective item(s) or refund the purchase price.

TN reserves the right to inspect products claimed to be defective under warranty either at the customer's location or at TN's plant. TN assumes no liability for liability charges incidental to the adjustment, service, repairing, removal or replacement of the product, or other costs, or the expense of repairs made outside of its factory, except when made with TN's prior written consent. Additionally, Transition Networks reserves the right to charge for all testing and shipping incurred, if after testing, a return is classified as "No Problem Found".

TN's total liability in connection with the products and their installation to all persons and from all causes in the aggregate, whether in contract, tort, or strict liability, shall not exceed the amount paid to TN for the product directly related to the alleged damage. However, in no event shall TN have any liability to a customer or any third party for products manufactures according to the customer's specifications.

C. Return Procedure

The customer must follow this procedure for the return of defective items:

1. Locate the serial number(s) of the item(s) to be returned.
2. Determine the date the item(s) was received.
3. Contact Transition Networks Technical Support to determine if the problem can be corrected on site.

If not, and the product is covered by warranty, then:

- Call the distributor directly or contact TN.
- Request a Return Material Authorization (RMA).
- Ship the item, prepaid in original packaging to Transition Networks at the above address.
- Include the RMA number on the outside of the carton and/or on the Packing List.
- Include a copy of the RMA form.
- Include a copy of the original invoice or packing list (if possible) to expedite processing.
- The item(s) may be shipped by the customer or the distributor.
- Transition Networks will repair or replace the unit, at TN's discretion, and cover the cost of the return freight to the distributor or to the customer, whichever requested the RMA number.

If the item(s) was received **more than five years ago**, or if the item(s) is **no longer covered by warranty** for other reasons, then:

- Call the distributor or contact TN.
- Request a Material Repair Authorization number (MRA).
- Ship the item(s), prepaid, in the original packaging to Transition Networks at the above address.
- Include the MRA number on the outside of the carton add/or on the Packing List.
- Include a copy of the MRA form.
- Include a copy of the original invoice or packing list (if possible) to expedite processing.
- Only the customer (end-user) may send the items(s) to TN.
- TN will contact the customer after the item(s) have been received, inspected, and a cost estimate of the repair determined.
- The repair charges may be billed, with customer's approval, though the distributor, or on a prepaid or C.O.D. basis directly to the customer. The charges will include the cost of shipping.

The return authorization numbers are valid only for 90 days from the date issued.

Warranty Statement

A. Five Year Warranty

Transition Networks, Inc. (TN) warrants, for a period of five years, that TN products (with the exception of power supplies and fans that TN warrants for two years) will be free from defects in materials and workmanship, and will be in conformity with TN's specifications.

TN's warranty on products manufactured by or assembled for TN in accordance with a customer's specifications, is a five-year warranty that the goods conform to such specifications.

The warranty is invalidated if the goods have been subject to alterations, misuse, accident, Acts of God (e.g., damage by floods, lightning strikes, Etc.), tampering, improper maintenance, improper installation, or abuse. If the user is unsure about the proper means of installing or using the equipment, contact TN's free Technical Support or Network Design Services, which can be reached by:

Telephone	**1.800.LAN.WANS or 612.941.7600**
Fax	**612.941.2322**
E-mail	**techsupport@transition.com**
Internet	**http://www.transition.com**

THE ABOVE WARRANTY IS EXCLUSIVE AND EXTENDS ONLY TO PRODUCTS ASSEMBLED BY TRANSITION NETWORKS, INC. TO THE EXTENT PERMITTED BY LAW, TN DOES NOT MAKE AND DISCLAIMS ALL OTHER WARRANTIES, EXCEPT TITLE, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF DESCRIPTION, MERCHANTIBILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, AND ANY WARRANTY BASED UPON PRIOR WRITTEN OR ORAL REPRESENTATIONS REGARDING SUCH PRODUCTS MADE BY TN, ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES.

B. Limitations and Exclusions

If the customer believes any goods sold by TN are defective and within the warranty period, the following general procedure will be followed:

1. Locate the serial number and delivery date of the item(s).
2. Notify TN within the warranty period.
3. TN will promptly issue a return authorization form for the goods.
4. Upon receiving the form, the customer will promptly return the item(s) at customers own expense, shipped prepaid, to the distributor from which it was purchased, or directly to TN.

TN will only accept goods for return if the following conditions have been met:

1. A return form is obtained from TN.
2. The freight charges have been prepaid by the customer.
3. Goods are re-packed in their original packaging.

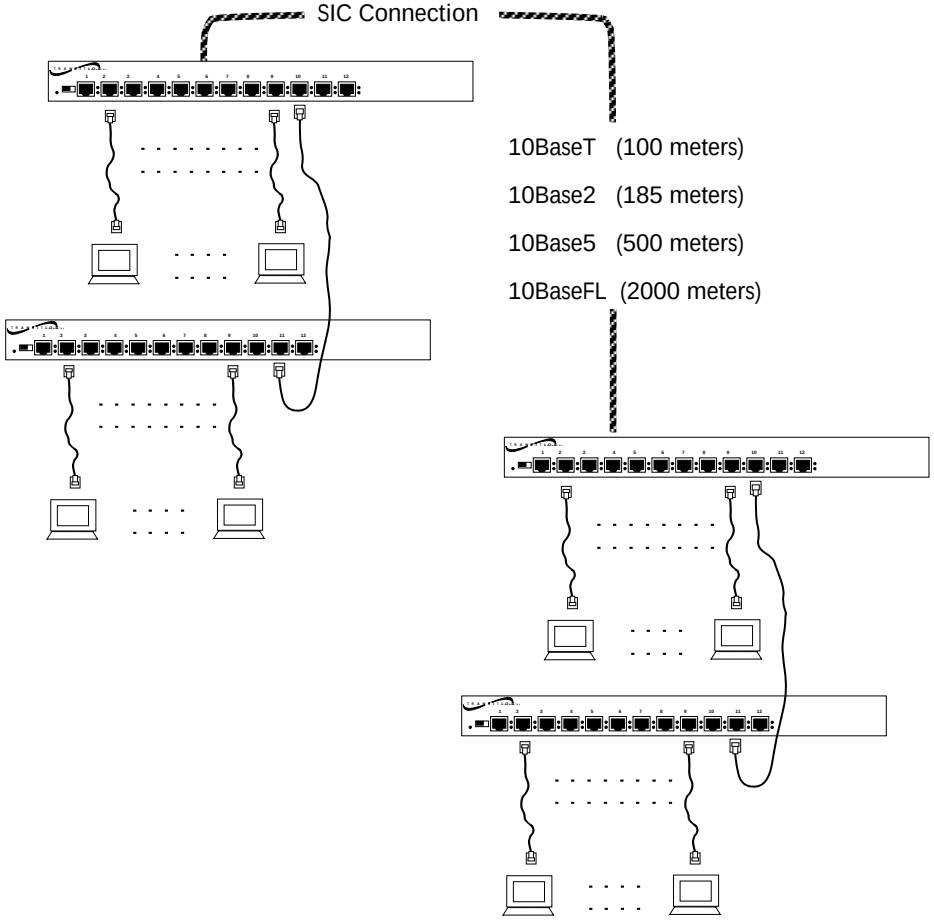
If under warranty TN shall, at its option, (1) repair the goods free of charge (2) replace the goods free of charge, or (3) accept the return of the item(s) and credit the current price to the reseller (within 90 days of purchase), or (4) if the goods are not under warranty, will repair the item(s) at a minimum charge of USD $200 (two hundred U.S. dollars) per item.

THIS IS THE EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY. IN NO EVENT SHALL TRANSITION NETWORKS BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER FOR BREACH OF ANY CONDITION OF SALE, FOR NEGLIGENCE, ON THE BASIS OF STRICT LIABILITY, CONTRACT, OR OTHERWISE AND IRRESPECTIVE OF WHETHER TN IS INFORMED BY CUSTOMER OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE OF THIS SALE.

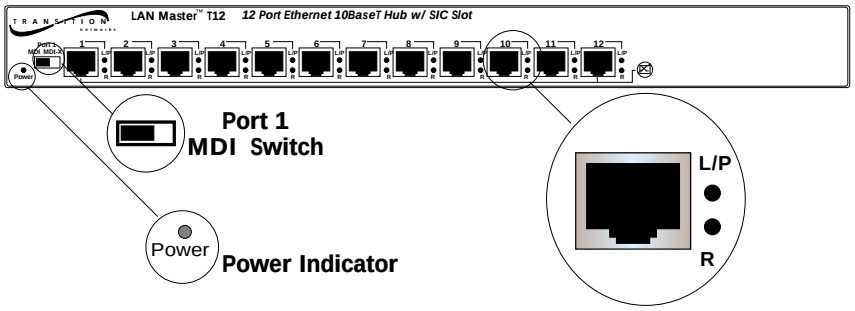
Networking the Model 1004 Repeater Hub

The Model 1004 Repeater Hub can be installed in an Ethernet network by connecting 10BaseT cable between RJ-45 connectors on the front of the hubs.

Additionally, the SIC slot on the back of the hub can be used to connect various media, selectable from among 10Base2, 10BaseT, 10BaseFL, and 10Base5.



1004 Repeater Connectors, Indicators and Switch



Connectors

Twelve (12) **RJ-45 10BaseT** connectors are located on the front of the Model 1004 Repeater Hub.

One (1) **power** connector is located on the back of the Model 1004 Repeater Hub.

NOTE: Slide-In cards (SICs), if installed, provide additional fiber optic, male and female AUI, BNC, or RJ-45 connectors.

LEDs

The **Power** LED indicates the Model 1004 Repeater Hub connection to AC power.

One set of **Partition, Link** and **Receive** LEDs indicate (for each port) the status of the Model 1004 Repeater Hub 10BaseT connections.

MDI Switch

The **MDI** switch reverses the straight-through/crossover cable polarity of the RJ-45 10BaseT connector #1.

5. MAINTENANCE

WARNING: DO NOT, UNDER ANY CIRCUMSTANCES, open and attempt to repair the Model 1004 Repeater Hub. Failure to observe this warning could result in personal injury or death from electrical shock.

NOTE: Failure to observe the above warning will immediately void the warranty.

Fault Isolation

If two network devices fail to communicate through the 1004 Repeater, consider the following:

- Are the LEDs described in the previous section functioning properly?
- Do network devices have Link Integrity enabled?
- Do network devices communicate when the 1004 Repeater is not installed between them?
- Is flat or “silver satin” wire used in site internal wiring?
- Are internal wiring patch cords, punch down blocks, and wall jacks properly pinned or configured?
- Is the thinnet cable unbroken and properly connected?
- Are network interface cards properly configured?

Technical Support Contact

For assistance in fault isolation and in maintaining the Model 1004 Repeater, contact:

Technical Support (800) 260-1312

or your local distributor.

4. OPERATION

The Model 1004 Repeater Hub requires no intervention beyond occasionally monitoring the Power and Status LEDs.

Monitoring Power LED

The green **Power** LED is illuminated when the Model 1004 Repeater Hub is connected to power.

Monitoring Status LEDs

The green **Link** LED blinks, indicating a partition condition, when the Model 1004 Repeater Hub port registers sixty-four consecutive collisions.

The green **Link** LED is illuminated a good port link has been achieved.

The green **Receive** LED is illuminated continuously when the Model 1004 Repeater Hub port registers packets received.

2. SITE CONSIDERATIONS

The site for the Model 1004 Repeater Hub must provide:

- AC power outlet for each Model 1004 Repeater Hub
- Adequate ventilation
- Standard environmental conditions
- Isolation from electrical noise, including radio transmitters and broadband amplifiers, motors, high power electrical lines, or fluorescent light fixtures.

Additionally:

- The twisted pair cables should not run in the same conduit with power line cables.
- Phone lines should be separated from data cables.
- Flat or “silver satin” wires should not be used.
- RJ-45 connected cables should be configured as crossover or straight through according to installation requirements.

And:

- Since the Model 1004 Repeater Hub is an Ethernet repeater, the entire installation should comply with the IEEE Ethernet 802.3 specification
- RJ-45 connected cables should be configured as crossover or straight through according to installation requirements.

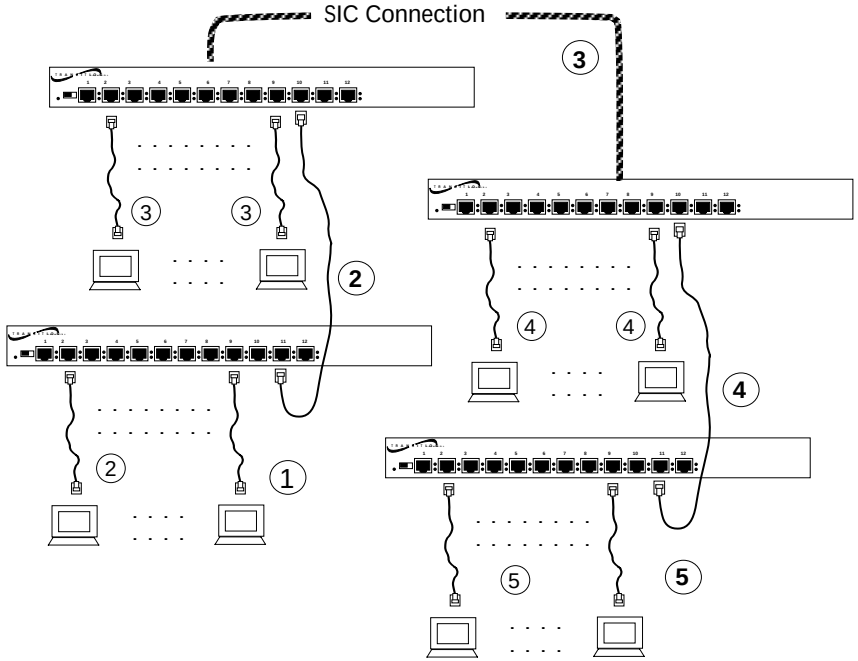
Ensuring Correct Segment Number

Ethernet 802.3 specifications define segment number, as well as cable characteristics. (A segment is the cable connection between cable interfaces in an Ethernet LAN.)

When connecting 1004 Repeaters, the transmission path between any two Data Terminating Equipment (DTE) terminals can consist of no more than five segments.

To assign segment numbers to cable connections:

1. Determine the two terminals in the network which are separated by the greatest number of segments.
2. Assign a segment path between the terminals by labeling the cable connected to one of the terminals “segment 1” and the segment connected to the other terminal “segment n” (n = total number of segments ≤ 5).
3. To verify that no segment paths contain more than n segments, assign segment paths and numbers to all other terminals.

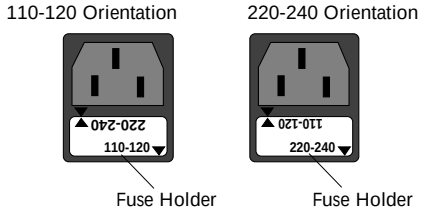


Connecting Power to Model 1004 Repeater

To power ON the Model 1004 Repeater:

1. At Model 1004 Repeater back, locate the Unit power receptacle and associated fuse.
2. Verify that fuse is installed at correct setting for power source voltage.

   NOTE: The installed fuse rating is indicated by the reading at lower right corner of fuse holder.



   If not installed at correct setting for power source voltage:

   - Carefully open fuse receptacle, using a small flat blade screwdriver.
   - Rotate fuse holder 180° to the correct rating orientation.
   - Install fuse holder in correct rating orientation.
   - Close fuse receptacle.

3. Plug unit end (female) of power cord into Model 1004 Repeater power receptacle.
4. Plug outlet end (male) of power cord into correct voltage AC wall socket.
5. At Model 1004 Repeater front, verify that POWER LED is illuminated.

NOTE: After the power supply adapter is connected to the Model 1004 Repeater and to external power, the green **Power** LED is illuminated.

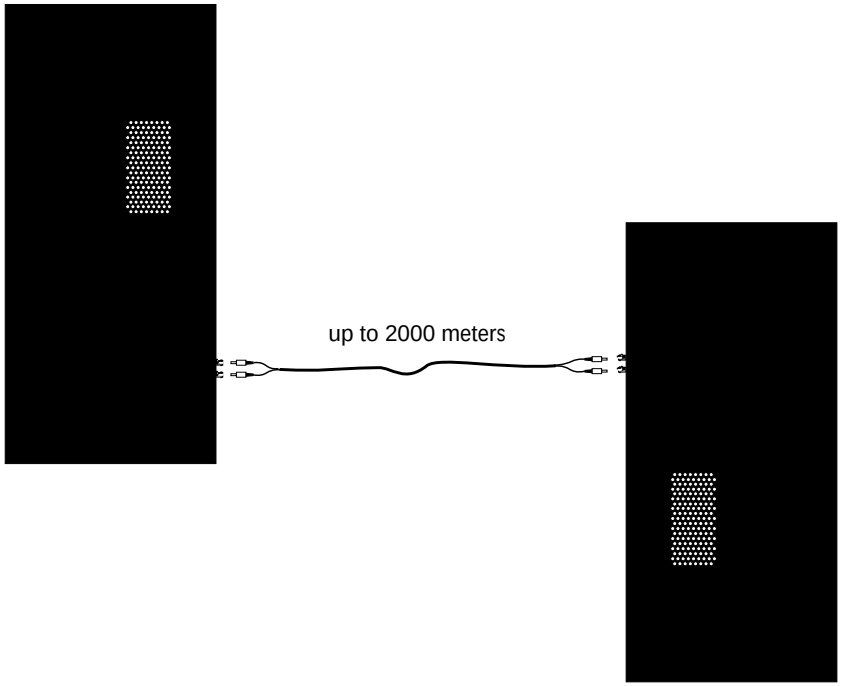
Male AUI Connector/PC Connection

The male AUI card (E-AUI-DC-SIC) provides a male AUI connector for connection, through an AUI drop cable, to a 10Base5 port on a powered PC.

Fiber Optic Connector/10BaseFL Connection

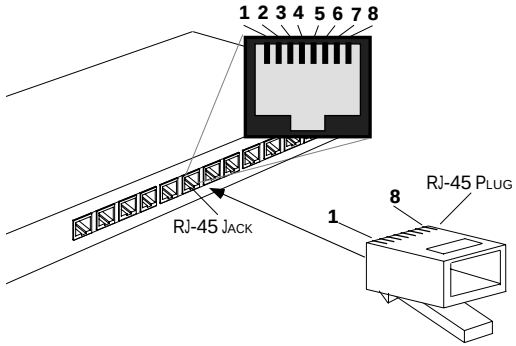
The fiber optic card (E-FRL-SIC) provides one set of transmit (TX) and receive (RX) ST connectors to fiber optic cable.

The redundant fiber optic card (E-FL/RED-SIC) provides a back-up fiber optic connection by using two sets of transmit (TX) and receive (RX) ST connectors to fiber optic cable.



Ensuring Correct 10BaseT Configuration

The 10BaseT cable and RJ-45 jacks for **Hub to Terminal** connections must be configured as **straight through**. The 10BaseT cable and RJ-45 jacks for **Hub to Hub** connections must be configured as **crossover**. NOTE: When installing the 1004 Hub using the MDI port, a crossover cable is not needed. The MDI switch can be used to change the straight through configuration to crossover at port 1.



The two active pairs in a 10BaseT network are pins 1 & 2 and pins 3 & 6. Use only dedicated wire pairs (such as blue/white & white/blue, orange/white & white/orange) for the active pins.

Straight Through Cable at RJ-45 Plug

Hub . . . . . .PC, transceiver, NIC, printer

RJ-45 Male	RJ-45 Male
1	1
2	2
3	3
6	6

Crossover Cable at RJ-45 Plug

Hub . . . . . .Hub

RJ-45 Male	RJ-45 Male
1	3
2	6
3	1
6	2

3. INSTALLATION

To install the Model 1004 Repeater Hub:

- Unpack the Model 1004 Repeater Hub.
- Install Model 1004 Repeater Hub on flat surface.
- Optionally install Slide In Card.
- Connect Cable to SIC and RJ-45 connectors.
- Connect Model 1004 Repeater Hub to power.

Direction is provided in the pages that follow.

Unpacking the Model 1004 Repeater Hub

The Model 1004 Repeater Hub packing contents should include the following:

Item	Part Number
Model 1004 Repeater Hub	E-TBT-HB-1004
Power Cord	3344, 3347, 3348, 3349, or 3523, (depending upon power configuration in country where installed)
User's Guide	7366

In addition, any of the following optional SICs may be included:

Item	Part Number
Thinnet Coaxial	E-CX-SIC
Fiber Optic	E-FRL-SIC
Twisted Pair	E-TBT-SIC
Female AUI	E-AUI-DT-SIC
Male AUI	E-AUI-DC-SIC
Bridge	E-BR-SIC
Redundant Fiber Optic	E-FL/RED-SIC

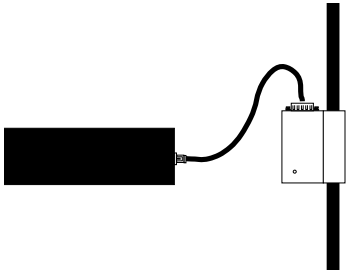
Female AUI Connector/10Base5 or Transceiver Connection

The female AUI card (E-AUI-DT-SIC) provides a female AUI connecto.r for connection to 10Base5 through an AUI drop cable or to 10Base2, 10BaseT, or10BaseFL through a transceiver NOTE: The bridge card (E-BR-SIC) also provides a female AUI connector.

Connecting 10Base5 Using AUI Drop Cable

To connect 10Base5 Cable to a female AUI connector:

1. Locate or build IEEE 802.3 compliant AUI drop cable.
2. Connect AUI drop cable male connector to the female AUI (DTE) connector on repeater.

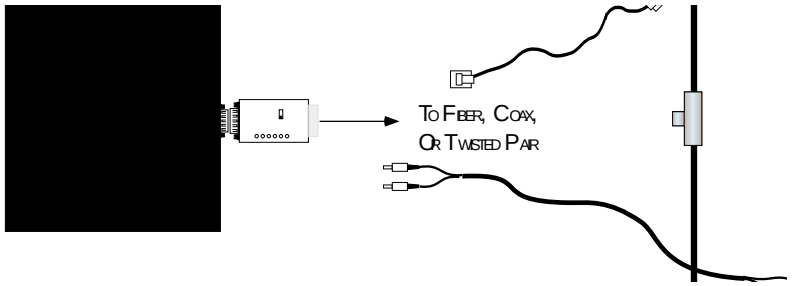


3. Connect AUI drop cable female connector to the AUI port on a transceiver or media attachment unit (MAU).

Connecting to Network Using Transceiver

To connect to a network using transceiver:

1. Locate IEEE 802.3 compliant transceiver with male AUI connector and correct network media connector.
2. Connect transceiver male AUI connector to the female AUI connector.
3. Connect transceiver network media connector to the network media.



Twisted Pair Connector/10BaseT Connection

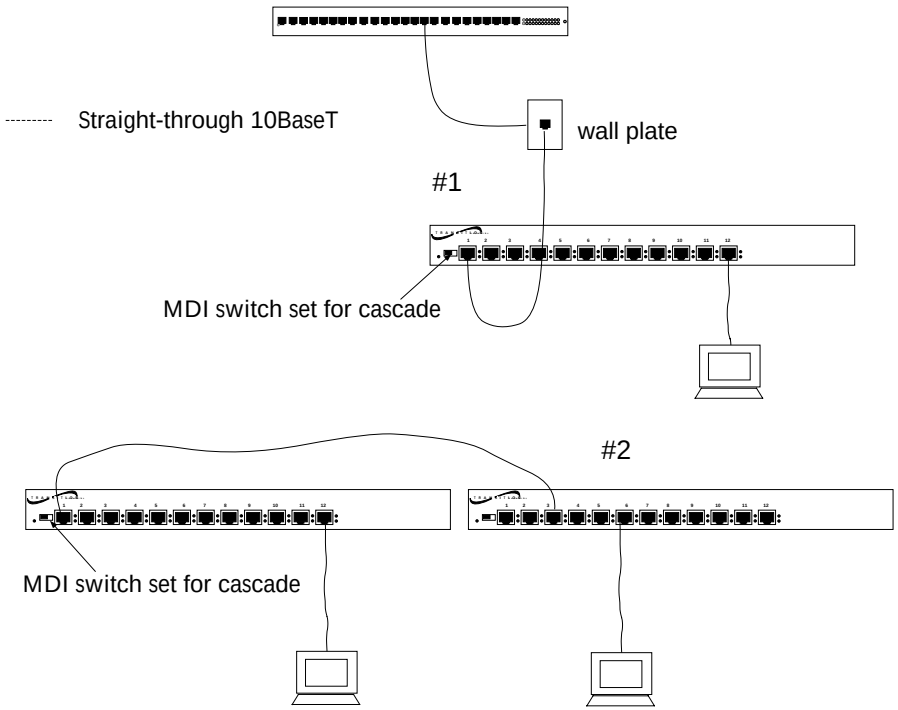
To connect 10BaseT Cable to Model 1004 Repeater RJ-45 connectors:

1. Locate or build 10BaseT cables that are:
   - 802.3 compliant (See page 18)
   - correct (**straight through** or **crossover**) cable configuration for site installation (See page 6)
   - male RJ-45 plug

2. Connect male RJ-45 plug connector at one end of 10BaseT cable to Model 1004 Repeater Hub RJ-45 jack connector.

   NOTE: Use MDI Switch to change polarity of RJ-45 cable at Port 1.

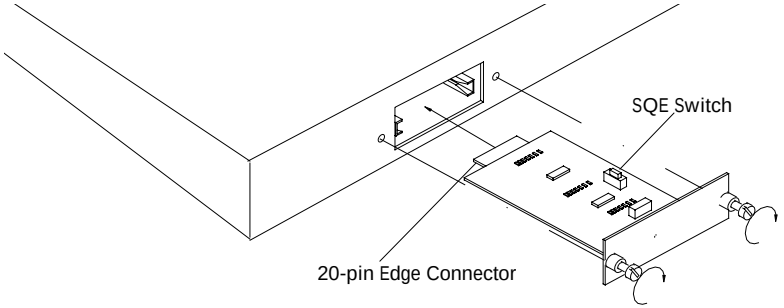
3. Connect male RJ-45 plug connector at other end of 10BaseT cable to DTE terminal RJ-45 jack connector (using Port 1 and setting MDI switch for cascade cable orientation) or to Hub RJ-45 jack connector (using **straight through** cable orientation).



Installing Slide-In Cards

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when installing Slide-In Cards. Failure to observe this caution could result in circuit board failure.

NOTE: Slide-in Cards can be hot-swapped.



To install a Slide-In Card:

1. Determine if the Slide-In Cards has an SQE switch and, if so, verify that the SQE switch is in the OFF position:

   NOTE: SQE switches must be set to the following OFF positions:

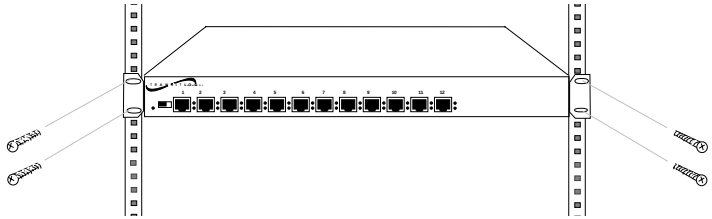
• UTP/STP card	TOWARD 20-pin edge connector
• Thinnet card	TOWARD 20-pin edge connector
• AUI-DCE	AWAY FROM 20-pin edge connector
• AUI-DTE card	Not Applicable
• Fiber Optic card	TOWARD 20-pin edge connector
• Redundant Fiber Optic	SQE jumper setting on board should be labeled; if not, holding card with 20-pin edge connector at top, jumper two leftmost pins.
• Bridge	Not Applicable

2. With the Slide-In Card components facing up, carefully guide the Slide-In Card along the card guides until the Slide-In Card connector meets the the Model 1004 Repeater Hub backplane.
3. Firmly push the card into the slot until the Slide-In Card faceplate is flat against the Model 1004 Repeater Hub frame.
4. Rotate the Slide-In Card thumbscrews into the Model 1004 Repeater Hub threaded holes.

Installing Model 1004 Repeater Hub

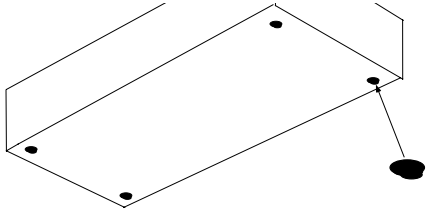
NOTE: Rackmount screws and clip nuts are NOT provided with the Model 1004 Repeater Hub.

To install the Model 1004 Repeater Hub **in 19-inch rack cabinet**:



1. Locate four (4) screws (and clip nuts, if necessary) for each Model 1004 Repeater Hub to be installed.
2. Carefully align the Model 1004 Repeater Hub between the 19-inch rack mounting rails at the installation position.
3. Install two screws through right front bracket and two screws through left front bracket, using clip nuts if necessary.

To install the Model 1004 Repeater **on table or other flat surface**:



1. Carefully turn Model 1004 Repeater Hub to side.
2. Install four (4) rubber feet (provided with repeater hub):
   - Remove protective paper from adhesive surface of rubber foot.
   - Position rubber foot at bottom corner of repeater hub.
   - Secure rubber foot to repeater hub surface.
   - Repeat for remaining rubber feet.
3. Return Model 1004 Repeater Hub to upright position.

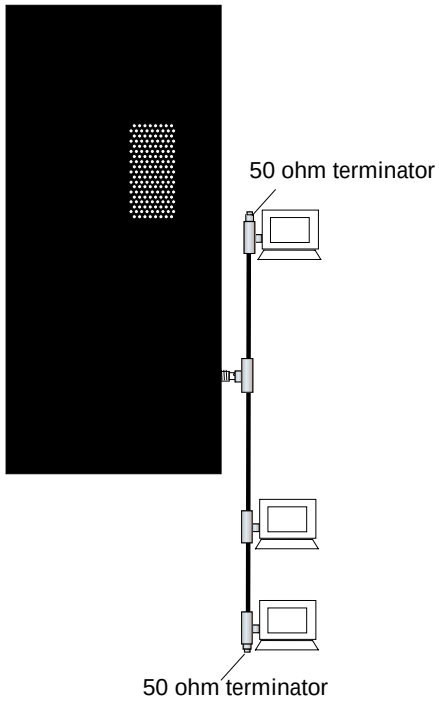
Connecting Cable to SIC/RJ-45 Connectors

Connections between installed Model 1004 Repeater Hub SICs or between a Model 1004 Repeater Hub SIC and a hub or terminal device include:

- Female AUI Connector/10Base5
- Male AUI Connector/PC
- RJ Connector/10BaseT
- BNC Connector/10Base2
- ST Connector/Fiber Optic

BNC Connector/10Base2 Connection

The thinnet coaxial card (E-CX-SIC) provides a BNC connector to 10Base2.



NOTE: Verify that coax cables on Model 1004 Repeater Hub are terminated properly at both ends.

(In a coax thinnet installation, the first and last device in a daisy-chain must be terminated with a 50 ohm terminator.)

Additionally, the 10Base2 segment must be grounded to “earth ground” at one end.